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Analisis Model Struktural Layanan E-learning Menggunakan Partial Least Squares dan Generalized Structured Component Analysis
DELASARI KATHRINA PANTOW, Prof. Dr. Abdurakhman, M.Si.
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INTISARI

Analisis Model Struktural Layanan *E-Learning* Menggunakan *Partial Least Squares* dan *Generalized Structured Component Analysis*

Oleh

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Penelitian ini membandingkan *Partial Least Squares Structural Equation Modeling* (PLS-SEM) dan *Generalized Structured Component Analysis* (GSCA) dalam menganalisis perluasan *Technology Acceptance Model* (TAM) pada penerimaan layanan *e-learning* di Universitas Terbuka Indonesia. Data sekunder diperoleh dari survei terhadap 2.787 mahasiswa. PLS-SEM menekankan kemampuan prediksi model, sedangkan GSCA menekankan evaluasi kesesuaian model secara keseluruhan. Hasil analisis menunjukkan bahwa persepsi kegunaan, norma subjektif, dan sikap berpengaruh positif dan signifikan terhadap niat menggunakan layanan *e-learning*, sedangkan persepsi kemudahan menggunakan berpengaruh signifikan terhadap persepsi kegunaan dan sikap. Analisis ukuran pengaruh (f^2) konsisten pada kedua metode, di mana persepsi kemudahan menggunakan merupakan variabel paling dominan dalam menjelaskan persepsi kegunaan. Nilai $R^2 > 0,5$ pada kedua metode tergolong moderat hingga kuat dalam menjelaskan variabel laten endogen dan nilai $Q^2 > 0$ menunjukkan model memiliki kemampuan prediktif yang baik. Evaluasi kesesuaian model menunjukkan GSCA lebih unggul dibanding PLS-SEM pada data ini, dengan $SRMR = 0,038$ (PLS-SEM: $0,067$), $FIT = 0,738$, $AFIT = 0,737$, dan $GFI = 0,997$. Secara substantif, penerimaan layanan *e-learning* dipengaruhi oleh persepsi kegunaan, kemudahan penggunaan, sikap positif, pengaruh sosial, pengalaman menyenangkan, dan dukungan fasilitas teknologi. Temuan ini menegaskan pentingnya fokus pada kemudahan penggunaan, kebermanfaatan sistem, pengalaman pengguna, dan dukungan lingkungan akademik untuk mendorong penggunaan layanan secara berkelanjutan.

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ABSTRACT

Analysis of the Structural Model of E-Learning Services Using Partial Least Squares and Generalized Structured Component Analysis

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This study compares Partial Least Squares Structural Equation Modeling (PLS-SEM) and Generalized Structured Component Analysis (GSCA) in analyzing an extended Technology Acceptance Model (TAM) for the adoption of e-learning services at Universitas Terbuka Indonesia. Secondary data were collected from a survey of $2,787$ students. PLS-SEM emphasizes the predictive capability of the model, whereas GSCA focuses on overall model fit. The results indicate that Perceived Usefulness, Subjective Norms, and Attitudes have positive and significant effects on Intention to Use, while Perceived Ease of Use significantly affects both Perceived Usefulness and Attitudes. The effect size analysis (f^2) is consistent across both methods, with Perceived Ease of Use being the most dominant factor in explaining Perceived Usefulness. The coefficient of determination (R^2) values above 0.5 in both methods indicate moderate to strong explanatory power for the latent variables, and the predictive relevance (Q^2) values greater than 0 in PLS-SEM confirm that the model has good predictive capability. Model fit evaluation shows that GSCA outperforms PLS-SEM in this dataset, with $SRMR = 0.038$ (PLS-SEM: 0.067), $FIT = 0.738$, $AFIT = 0.737$, and $GFI = 0.997$. Substantively, the adoption of e-learning services is influenced by perceived usefulness, ease of use, positive attitudes, social influence, enjoyable experiences, and technological support. These findings highlight the importance of focusing on usability, system benefits, user experience, and academic support to promote sustainable use of e-learning services.